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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,473	05/08/2001	Paul A. Smith	01CR052/KE	3765

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EXAMINER	
LY, ANH VU H	

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/851,473	SMITH ET AL.	
	Examiner	Art Unit	
	Anh-Vu H. Ly	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 26, 2005 has been entered.

Claim Objections

2. Claims 3-5 are objected to because of the following informalities:

With respect to claim 3, in line 2, "the first communication unit" and "the second communication unit" should be changed to - -the first unit- - and - -the second unit- -.

With respect to claim 4, in line 2, "the first communication unit" and "the second communication unit" should be changed to - -the first unit- - and - -the second unit- -. Further, in lines 2-3, "otherwise communicate according to STANAG 5066" is unclear. It is unclear because the first and second units are units of a STANAG 5066 communication system and they communicate according to STANAG 5066 protocol. Unless a different system other than STANAG 5066 being mentioned in the claim.

With respect to claim 5, in lines 1-2 "the LQA value" lacks clear antecedent basis. It is unclear whether the first LQA value or the second LQA value being referred to.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fornes, J. "Proposal for an ALM Open Architecture" 1999 Institute of Electrical Engineers, 29-30 March, 1999, pages 25/1-25/10 further in view of Rasanen (US Patent No. 6,646,998 B1).

With respect to claims 1, 7, and 13, Fornes discloses (see Abstract) automatic link maintenance (ALM) architecture for use in STANAG 5066 system (a STANAG 5066 communication system). ALM operation requires exchange of messages between two peer HF nodes (a first unit and a second unit). Fornes discloses on pages 25/3-25/4 a technique for determining the optimum transmission parameters values for peer nodes (wherein first unit and second unit communicate data at a data rate selected in response to the first LQA and second LQA value) by exchanging recommendations (LQAs) or list of parameters and their standard values (LQAs) between two peers ALM. Herein, the determination includes the stages of requesting (first unit provides an LQA command to the second unit), replying and exchanging stages (second unit records a first LQA value in response to the LQA command and transmits the first LQA value to the first unit, wherein the first unit records a second LQA value in response to the first LQA value and transmits the second LQA value to the second unit), and acknowledging.

Fornes discloses means to change link parameters of an established and ongoing link. Fornes does not disclose that link parameters are set during initial linking. Rasanen discloses (see Abstract) that negotiating, at the call-setup stage, the data rate to be used by the data call in the bearer service between the mobile station and the mobile communication network. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of negotiating the link parameters at the call-setup stage in Fornes's system, as suggested by Rasanen, to maximize the initiated transmission rate and system's capacity.

With respect to claims 2, 8, 9, 17, and 18, Fornes discloses on page 25/1 that the automatic link maintenance adapts the parameters values used by an HF transmission system (the system includes at least a transmitting entity and receiving entity) like transmit power, channel, waveform, interleave (communicate at a selected interleaving level), data rate, frame length, transmission duration, number of repetitions, etc... in order to get the optimum performances (wherein first unit and second unit communicate data at an interleaving level selected in response to first LQA value and second LQA value).

With respect to claims 3 and 16, Fornes discloses (see Abstract) automatic link maintenance (ALM) architecture for use in STANAG 5066 system. STANAG 5066 is a high frequency wireless system (wherein first and second communication units are wireless units).

With respect to claim 4, Fornes discloses (see Abstract) automatic link maintenance (ALM) architecture for use in STANAG 5066 system (wherein the first and second communication units communicate according to STANAG 5066).

With respect to claim 5, Fornes discloses on page 25/4 that the receiving node ALM will measure the channel characteristics of transmission (wherein LQA value indicates a quality of channel between the first unit and second unit).

With respect to claim 6, Fornes discloses on page 25/5 that the ALM uses the data exchanges between two HF nodes to exchange peer messages. ALM peer messages can either be inserted into user data flow in specific fields, such as EOW messages as it is in STANAG 5066 specification or use all link resources with a specific protocol such as Management messages as it is in STANAG 5066 specification (wherein LQA command includes a preamble, a first character, the first character being comprises of seven bits).

With respect to claims 10-12, Fornes discloses on pages 25/3-25/4 a technique for determining the optimum transmission parameters values for peer nodes by exchanging recommendations (LQAs) (wherein data rate is greater than 300 bits per second) or list of parameters and their standard values (LQAs) (the algorithm includes a maximum data rate, a default rate and a minimum data rate and uses the first LQA value to choose the data rate between the maximum data rate and minimum data rate) between two peers ALM. Herein, the

determination includes at least the initial stage, exchanged stages (the transmitter provides a command LQA value), and acknowledged stage.

With respect to claims 14, 15, 19, and 20, Fornes discloses on page 25/35 that the message includes S/N, BER, FER, MP, DS, etc...(wherein the quality command value signal and acknowledgement includes SINAD bits and BER bits).

Response to Arguments

4. Applicant's arguments filed September 26, 2005 have been fully considered but they are not persuasive.

Applicant argues in pages 5-6 that if the channel already optimized using the disclosure of Rasanen, there would be no point in re-optimizing the channel using the invention of Fornes. Examiner respectfully disagrees. Channel optimization can occur any where during the connection, which including prior to transmission and during transmission, due to unexpected conditions. It is an end-to-end channel optimization. Therefore, channel optimization occurs prior to transmission can be re-occurred during transmissions due to unexpected results.

Applicant further argues in page 6 that Fornes teaches against exchanging the results of measurements. Examiner respectfully disagrees. The word "may not be appropriate", as stated in page 25/3 of Fornes, is not a positive statement. Further, applicant's argument is not directed to the claimed limitations.

Conclusion

5. This is a continuation of applicant's earlier Application No. 09/851473. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl

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11/23/05